CIA/RR GB 64-50
December 1964

CLIMATIC AND SOIL DATA ON TBILISI

(41°42'N-44°45'E)

I. Climate

Tbilisi has a climate somewhat comparable to that of south-central New Mexico. It is characterized by long, hot summers, relatively mild winters, low precipitation, and little snow cover.

The temperature regime is similar to that of Takoma Park, Maryland. The average monthly surface air temperatures (see Table 1) range from 32.9°F in the coldest month (January) to 75.6°F in the warmest month (July), and extreme temperatures of 4.0°F and 100.4°F have been recorded. Freezing and thawing weather is common in midwinter. About 25 days in January have average daily temperatures near freezing. Daily temperatures in summer average above 60°F for at least 5 months, and in July and August the daily maximum temperatures usually reach the middle or upper 80's.

The annual precipitation (see Table 2) averages about 20 inches, more than 40 percent of which occurs in late spring and early summer and about 10 percent in winter. The maximum monthly precipitation normally occurs in May, with an average of 3.6 inches, and the minimum in January, with an average of 0.6 inch. The predominant forms of precipitation in spring, summer, and fall are showers, sometimes fairly heavy, and thunderstorms, often accompanied by hail. Thunderstorms occur from March to November but are most frequent in May and June. Snow may fall any time from December to March, but such snowfalls are light and relatively infrequent. The snow melts quickly, accumulates to depths of only a few inches (the average of recorded annual maximum depths is 2.4 inches), and seldom persists as snow cover for more than a week. Generally there are about 16 days with snow cover between late December and early March.

Table 1

Temperature
(in degrees Fahrenheit)

	Average	Daily Average at 1300 LST a/	Average Daily Minimum
January	32.9	38.0	26.0
February	36.1	44.0	31.0
March	44.2	51.0	35.0
April	53.2	59.0	44.0
May	62.8	70.0	53.0
June	69.8	79.0	60.0
July	75.6	84.0	65.0
August	75.4	84.0	65.0
September	66.9	75.0	57.0
October	56.8	65.0	48.0
November	45.3	51.0	37.0
December	37.0	43.0	31.0
Annual	54.7	62.0	46.0
Length of record (in years)	Unknown	18.0	10.0

Average of annual absolute minimums: 12.2

Absolute minimum: 4.0

Absolute maximum: 100.4

Average daily temperature exceeds:

41 -- 4 March to 27 November
50 -- 6 April to 3 November
59 -- 3 May to 9 October

Normal frost-free period: 25 March to 16 November

a. Presented in lieu of average daily maximum temperature. Average 1300 LST values can be considered about 2 to 6 degrees lower than average daily maximum temperatures, with the greatest difference occurring in summer.

Table 2

Precipitation a/

	Average (in inches)	Thunderstorms (average number of days)	Hail (average number of days)	Snowstorms (average number of days)
January	0.6	0	0	0.2
February	0.9	0.04	0.03	0.2
March	1.1	0.30	0.02	0.1
April	2.2	2.00	0.30	0
May	3.6	9.00	0.60	0
June	2.8	9.00	0.50	0
July	2.0	7.00	0.10	0
August	1.3	5.00	0.10	0
September	1.7	4.00	0.40	0
October	1.6	2.00	0.04	0
November	1.5	0.06	0	0
December	0.9	0	0	0.1
Annual	20.2	38.40	2.09	0.6

Average number of days a year with snow cover: 16

Average date of first snow cover: 25 December

Average date of last snow cover: 3 March

Average of greatest annual depths of snow cover (based on 10-day period): 2.4 inches

a. Length of record unknown.

II. Soils

The urban area of Tbilisi is situated on slightly rolling terrain that rises to about 650 feet above the Kura River. The airframe plant is located at the northeastern edge of Tbilisi about 700 feet from the river on a relatively level terrace roughly 50 feet above the river.

The upper layer of sediments in the Tbilisi area generally consists of silty clay and sandy clay to a depth of about 6 feet. This upper layer is successively underlain by beds of clay, sandstone, argillaceous sandstone, and conglomerate shale with a total thickness of more than 1,200 feet.

For installations having foundations less than 10 feet deep, conditions below the level of frost penetration (absolute maximum of 2 feet) vary from fair to poor, depending on the degree of compaction of the characteristic silty clay and sandy clay deposits in the vicinity of the airframe plant. For installations requiring deeper excavations, the underlying sediments generally would present complex support and stabilization problems. Subsurface drainage problems affecting construction are seasonal, as the water table varies from less than 20 feet below the surface in spring to as much as 40 feet in some places in summer and fall.

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(41°42'N-44°45'E)

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CIA/RR GB 64-50 64.1725C 25X1A

Construction Branch, D/MS/RR [redacted] 3635

[redacted] GG/S None

25X1A

24Dec64

2 Requester

2 GG/S

1 Ch/G

1 St/P/G

1 [redacted] 25X1A

1 SR/CR

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